Castlemaine Naturalist

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Monthly newsletter of the Castlemaine Field Naturalists Club Inc.

Acacia genistifolia, Spreading Wattle, Kalimna Park *Photo by Euan Moore*

SUSPENSION OF CASTLEMAINE FNC ACTIVITIES

Due to Federal and State Governments' requirements that we practice "social distancing", restrict gatherings and avoid non-essential travel, the CNFC Committee has decided that for the time being, **all club face-to-face activities will be suspended - general meetings, excursions and committee meetings**. The Committee will continue to meet as necessary via teleconference and email.

However, we can still enjoy nature especially during this fine Autumn weather, and we encourage you to record your observations of interesting plants, birds and other creatures even from your backyard, taking photographs of special sightings. Consider preparing a short note on interesting observations, and emailing it to noelyoung@outlook.com.au for the Newsletter.

Watch the club Newsletter, website and emails for other ways in which we can all participate in nature for enjoyment and protection through the challenging months ahead.

President's Report 2019

George Broadway

How quickly these annual events keep coming round. It seems only a couple of months since I sat here at the computer wondering what I was going to write about in 2018. I decided then that there was no point in simply reminding everyone of what we had done during the year, as you are all perfectly aware. Nevertheless, it is interesting to look back at our 2019 program and recall the various highlights.

We were privileged to be able to welcome Alison Pouliot back for a return visit, considering she is a very busy person running Fungi events in both Australia and Europe. David Cheal is another welcome return visitor. On the other hand we were able to welcome Patrick Kavanagh for the first time; Patrick showed us some of his marvelous macrophotographs of insects and other creepy crawlies and further demonstrated his technique for obtaining his pictures. Chris Tzaros is another who

we welcomed back again, especially as he was able to bring us some good news concerning the (previously endangered) Turquoise Parrot.

And then there were the field trips. I particularly enjoyed our trip to the Wombat Forest with Gayle Osborne in search of fungi. There were quite a few to be found, and they make such good subjects for photography, generally colourful and always keeping quite still.

The highlight of the year of course was without a doubt our hosting of the SEANA get together in October when more than a hundred Field Nats from the S.E of Australia gathered at the Campbells Creek Community Hall. Several excursions were run, some having to be added to the plan in order to cater for the large number of participants, it having been decided to limit the number on each excursion. Following the excursions, participants enjoyed a sumptuous buffet meal, catered for by the Dove café, after which our two guest speakers Tanya Loos and Dr Tim Entwisle presented entertaining and informative talks.

I wish to thank the army of volunteers who performed the multitude of tasks required to make this project the success it was, from the people who came to set up the hall, and cleaned up afterwards; all those people, several of whom were not club members who lead excursions; the members of the special committee which we set up to organize the show, and in particular our secretary Peter who shouldered so much of the burden, despite spending time in the U.K. prior to the event. Distance did not prevent him from carrying out some of the tasks which needed to be done.

An important task which was undertaken this year was assisting Margaret Panter with her aim of removing the invasive and harmful Chilean Needle Grass from where it was infesting the Botanical Gardens. I mentioned this last year as a highly undesirable weed.

Other ongoing activities were bird surveys, the regular roadside cleanup organized by Geoff, and the Springtime Wildflower walks.

I also want to thank your committee for their assistance: two of whom in particular take on a considerable load, viz. our NL editor Noel, whose dedication can be appreciated every month when the Newsletter arrives, and secretary Peter who keeps everything so well organized that I as President hardly have to do a thing, except provide a meeting place. Potential presidents please take note.

Not to be forgotten are the Harrises. Most members will be aware how the club finances are kept in order in Geoff's quiet efficient way, not to mention his organization of the periodic roadside cleanups, while Geraldine is to be thanked for organizing the distribution of the newsletter and her self imposed task of providing a delicious cake for our supper every month as well as organizing the cups, tea, coffee, etc. Thank you both.

I hope that when the next president's report comes to be written that the Coronavirus scare will be a thing of the past, dare we hope? At present however the prospect seems rather dismal. People are losing their savings as share prices tumble, others cannot find toilet paper because a few people have panicked, and various food types can no longer be found.

It may be that we will have to forego some of our meetings this year if the situation deteriorates further; as you will be aware, some events in Australia have already been cancelled. My family now wishes to wrap me in cotton wool in view of my advanced age and medical history, so they are placing severe restrictions on my movements. I hope this will not be for long but for the time being I may be unable to participate in my usual activities.

Nevertheless I conclude by wishing you all a happy and above all a **healthy** 2020 and hope that we will all be there to participate in the 2021 AGM without any fear of crowds.

March excursion:

Castlemaine Botanical Gardens Nature Reserve

Peter Turner

Local ecologist Karl Just led nine members and one visitor from Bendigo around the CBG Nature Reserve on our March excursion. Karl was commissioned last year by Mt Alexander Council to prepare a Management Plan for the area, which he expects to be released soon for public comment. In the late 1980's the first population of Eltham Copper Butterflies in the Castlemaine area was found by David Crosby on this steep hillside, around *Bursaria spinosa* plants. The reserve was heavily infested with Cape Broom *Genista monspessulana* and Flax-leaf Broom, *Genista linifolia.* Members of the club led volunteer teams in a massive effort to clear this weed, and to plant more Sweet Bursaria, and the legacy of this work can be seen today. Plant surveys were carried out by Ern Perkins and other CFNC members.

Karl pointed out a number of plants along our walk, and outlined his ideas for improved entry points and signage, some improvement of the tracks, and proposals for further weed removal including some of the pines. Richard Piesse recorded 55 indigenous plants during the afternoon, including two not on Ern Perkins' last printed Castlemaine plant list (2014): *Dianella tarda* Late-flower Flax-lily and *Acacia provincialis* Inland Wirilda. Plants in flower were *Corumastylis archeri* Variable Midge Orchid and *Astroloma humifusium* Cranberry Heath. *Acacia genistifolia* Spreading Wattle and *Hovea linearia* Common Hovea were in bud.

Thanks to Karl for an interesting afternoon – we look forward to reading his proposals for improvements to this precious piece of bushland in the heart of town.

Birds of Sutton Grange March 2020

Nigel Harland

Superb Fairywren
Red-browed Finch
White-browed Scrubwren
Australian Magpie
Australian Raven
Little Raven
Laughing Kookaburra
Yellow-tufted Honeyeater
Wedge-tailed Eagle
Sulphur-crested Cockatoo
Long-billed Corella
Crimson Rosella
Striated Pardalote
Spotted Pardalote
Grey Shrikethrush
Black-faced Cuckoo Shrike
New Holland Honeyeater
Welcome Swallow
Red Wattlebird
Common Bronzewing
House Sparrow – still six!!
Galah
Fuscous Honeyeater
Brown-headed Honeyeater
White-throated Treecreeper
White-plumed Honeyeater
White-naped Honeyeater
Buff-rumped Thornbill
Grey Currawong
Eastern Yellow Robin

Sludge – an environmental history of water and the Gold Rush

Peter Turner

Field Naturalists familiar with the Central Goldfields are well aware of the legacy of the gold mining era – the Box-Ironbark woodlands cut and cut again, the pockmarked areas where hundreds of miners worked their small leases, the sluiced-out, heavily eroded creeks and rivers and the network of channels to bring water to the mines. But we learnt a lot more at our March meeting about the environmental damage to our larger creeks and rivers, and about the amazing entrepreneurs who brought water to the miners and mines before the Government funded dams and channels like the Coliban system were developed. Susan Lawrence, Professor of Archaeology at Latrobe University, and her colleagues have been studying the Victorian goldfields waterways for decades, to find out how the immense amounts of water required for mining were obtained, and to determine the destinations and impacts of the enormous quantities of gravel, sand and fine silt sluiced down the creeks from the mining operations.

Susan started her talk by reminding us that the Victorian gold mining boom lasted over 50 years from the 1850's, extracting 2% of the world's gold – 50% more than the Californian boom. Mining technologies, from the early ground and box sluicing, through horse-driven puddling machines, quartz crushing batteries to hydro-sluicing and dredging, all require lots of water. Victoria is a dry place, so in the late 1850's through to the 1870's private investors built dams across creeks and thousands of kilometres of channels to deliver water to their own mining operations and for sale – very profitably in most cases – to other miners. Private channel systems crossed each other, there were court cases to resolve fights over access to water, and whether the British system of riparian water rights meant that water running through a landowner's property belonged to him. In 1862 the pioneering Water Licence Act brought all water into Crown ownership, with licences issued to miners and those investing in dams and channels.

There were no tailings dams as required today – it seems to have been accepted that the miners had the right to wash the tailings – the sludge - down the creeks and rivers, where it caused mayhem for farms and settlements downstream. Sludge covered productive pastures and crops, roads and properties in places like Bendigo, in a thick layer of gravel, sand and fine silt, often two metres deep. This continued for over 50 years despite decades of protest from farmers and town councils, unsuccessful in their demands for recompense from government and courts. It is estimated that between 1859 and 1900 over 650 million cubic metres of sludge was spread across river valleys of 75% of Victorian catchments – especially the Ovens River and its tributaries. Along the Loddon River, sludge can be seen as far as Bridgewater. Rivers of clear water rich in fish and other life, that meandered across floodplains, changing their routes following wet seasons, became the deeply eroded channels we see today – with layers of yellowish sludge clearly visible in places above the darker original topsoil.

By the early 1900's gold had become less valuable to the nation than agricultural products – wool and wheat. So when journalist and farmer John Bowser, who had first-hand experience of the impacts of sludge, became an MP, his 1902 private members bill started changes that led to amendments to the Mining Act, and

formation of the Sludge Abatement Board - which remained in operation until the 1980's – as well as changes to mining operations such as the use of tailings dams to retain sludge. But the impact on farm land can be seen today when comparing the productivity of sludge covered pastures with unaffected areas. Susan ended her informative and entertaining talk by pointing out that much of the crown land that originally provided accessible grazing for gold miners - the "Goldfields Commons" - is now state forest, important nature conservation areas and national parks.

The next morning several CFNC members joined Newstead Landcare for a short excursion led by Susan Lawrence to observe two aspects of the legacy of sludge. Just north of the bridge over the Loddon, we were shown a clear example of the lighter sludge overlaying by about a metre the darker band of original floodplain topsoil. Then, at the end of Punt Rd we saw gravel banks in the river that had formed from past upstream dredging outwash and that are still moving, when the Loddon floods, downstream – towards the Murray River!

Susan Lawrence addressing the excursion group at the Loddon River, Newstead
Photo by Euan Moore

Much more information about water for mining and sludge can be found in the book *Sludge – Disaster on Victoria's Goldfields* by Susan Lawrence and Peter Davies (Latrobe University Press/Black Inc 2019), and at https://rivers-of-gold.com/.

Loddon River bank showing the lighter sludge overlayering by about a metre the darker band of original fertile floodplain topsoil (arrow). The River Red Gum on the right predates the sludge deposition, showing two tiers of surface roots. *Photo by Euan Moore*

Observations

Geraldine Harris

Photos by Geraldine Harris

17/1/20 Aireys Inlet: We noticed little tubes of sand poking up above the water along the beach (photo). We wondered how these little sand structures about 3-5 cm high could stand with tidal water swirling around them? According to Wikipedia: they may be *Lanice conchilega,* commonly known as the sand mason worm. *L. conchilega* is a species of burrowing marine polychaete worm. It builds a characteristic tube which projects from the seabed, consisting of mucus-cemented sand grains and shell fragments with a fringe at the top. We did see some smaller ones with a tuft on top.

15/2/20 Barkers Creek: We found this Slender Gum-leaf Grasshopper (also known as Dead Leaf Grasshoppers) in our bush (photo). They feed on live green and sometimes dry eucalyptus leaves and shelter on the ground in the leaf litter.

16-27 March, Barkers Creek:

We had a micro-bat flying around the bedroom as we read in bed, probably a **Lesser Long-eared Bat** as that is what we usually have here.

Our very dry and well grazed bush has little to show in the way of flowers apart from some old Sticky Everlastings *Xerochrysum viscosum* but we did find one brave little **Variable Glycine *Glycine tabacina*** that had recently finished flowering . An identifying feature of this rare grassland plant is that each leaf is made-up of three stalked leaflets with the central stalk longer than the side stalks (photo). And after seeing Midge Orchids on our FN excursion in the Botanic Gardens I searched our usual spot at home and found two spent flower heads which were too difficult to identify (photo).

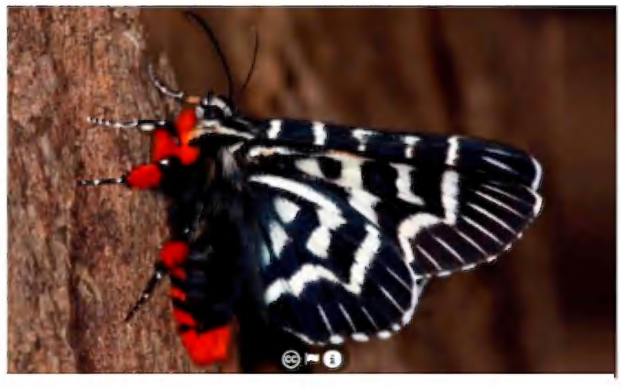
In the garden, many birds and insects are feeding on the autumn flowering **Box Mistletoe *Amyema miqueli*** (photo), and the blossom of **Red Ironbark *Eucalyptus sideroxylon***. Of an evening around 6pm we have regularly watched up to four birds of prey soaring overhead - we heard the larger one calling - a **Whistling Kite**. We have also seen **Eastern Spinebills** and **Rainbow Bee-eaters** on several occasions.

Observations (cont.)

Jenny Rolland and Euan Moore

13/3/20: When doing our regular bird-count along Forest Creek behind Best's Motors, we noticed some striking, large (~5 cm) caterpillars, on Wireleaf Mistletoe *Amyema pressii* on a Black Wattle. They were caterpillars of the Mistletoe Day-moth *Comocrus behri*. Interesting to note that the caterpillar colours are maintained in the adult stage.

Photo by Euan Moore



Mistletoe Day-moth *Comocrus behri*
Photo by Ron Greer, iNaturalist

Citizen Science projects

A great way to contribute to knowledge and protection of our wildlife and environment especially at this time is to participate in Citizen Science projects. Here are two examples.

1. The ***Wild Pollinator Count*** is a citizen scientist event held twice a year. It aims to build a database on wild pollinator activity and collects information on which of our native bee species, thousands of butterfly and moth species, beetles, ants, wasps, flies, and thrips can be documented as pollinators of flowers (whether native, weedy or exotic plant species).

The Autumn 2020 *Wild Pollinator Count* will take place between 12–19 April. There will be a Spring count in mid-November. To register, obtain instructions (they are easy!) and record your ten-minute count details of what (insect), where (location) and when (time of day). Visit the website for further information wildpollinatorcount.com

(Excerpt from the Geelong Naturalist, March 2020)

2. Platypus and Rakali monitoring

On Sunday 15 March, Friends of Campbells Creek Landcare group organised a citizen science workshop where experts from the Australian Platypus Conservancy highlighted the conservation needs of these animals and outlined ways in which the community can help monitor their populations in local rivers, creeks and lakes. The platypus is listed as near threatened, so it was exciting to hear that several are regularly seen in Campbells Creek, attesting to the excellent landcare work being done by the group. The APC is keen to receive records of sightings through the Australian Platypus Monitoring Network www.platypusnetwork.org.au.

Jenny Rolland

Disclaimer: The opinions expressed in this newsletter are those of the contributors and not necessarily those of the club

From your Committee

ANNUAL GENERAL MEETING

At the AGM on March 13th, all nominations for office bearers and committee members were appointed to the 2020/21 committee. George Broadway (who was unable to attend the AGM) stepped down as President, but is happy to continue as a committee member.

President: Vacant
Vice-President: Dianne Thomson
Secretary: Peter Turner
Treasurer: Geoff Harris
Newsletter Co-Editors: Noel Young and Jenny Rolland
Committee: George Broadway, Euan Moore, Richard Piesse

MEMBERSHIP FEES DUE

Membership subscriptions for 2020/21 are now due. Your completed membership form (available from the CFNC website) can be mailed with cheque to the Treasurer, or completed with details of direct payment into the CFNC account (details on the renewal form), or scanned and mailed or emailed to castlemainefnc@hotmail.com

Subscriptions for 2020

Ordinary membership: Single $35, Family $50
Pensioner or student: Single $25, Family $30
Subscription includes postage of the monthly newsletter, Castlemaine Naturalist

NEWSLETTER

During this time more than ever, we welcome contributions from members as articles, sightings and/or photos. Have you seen something unusual? Something you can't identify? Do you have records of changes in flowering time, bird arrivals or departures etc. If it interests you, it will interest others. We look forward to hearing from you!

Deadline for the May issue of the Castlemaine Naturalist: **24th of April**.
Email newsletter material to: **noelyoung@outlook.com.au**

Club website (Web master: Ron Wescott) -
http://castlemainefnc.wordpress.com/